

Dunloup Creek Voluntary Buyout Project City of Mt. Hope, WV Water & Sewage Utility Analysis



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Dunloup Creek Voluntary Buyout Project

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Dunloup Creek Voluntary Buyout Project

Executive Summary

In 2010, a voluntary floodplain buyout was initiated for residents along Dunloup Creek, Fayette County to address the chronic, devastating flooding in the watershed. The purpose of this report is to further quantify the impacts of the buyout now that it is nearing completion. Of specific concern is the relationship between the buyout and the increases in utility rates to Mt. Hope's customers. Mt. Hope residents have experienced significant rate increases in their monthly water/sewage bills. This report evaluates what portion of the rate increases can be attributed to the buyout.

Project Background:

The Dunloup Creek Voluntary Buyout Project has a long history with the Mt. Hope community. The timeline in the Appendix shows the progression of the project from 1965 until now, including crucial events that had bearing on the overall economic and social well-being of the community. For more than 30 years, residents and local officials have been seeking solutions to the flooding along Dunloup Creek. Traditional solutions such as dams and floodwalls were infeasible, leaving the community with a buyout as the only option. The scope of the flooding problem is large, with about 300 homes and buildings vulnerable to flooding and flood damages for the five communities (Mt. Hope, Kilsyth, Glen Jean, Harvey and Red Star) in the 100-year floodplain averaging more than \$1 million per year. It is within this context that the Dunloup Creek Voluntary Buyout Project has occurred.

Project sponsors are the West Virginia State Conservation Committee, Southern Conservation District, and the Fayette County Commission. Fayette County and Mt. Hope signed maintenance agreements for properties for which they assumed title. The Fayette County Commission used existing staff to administer the project through local contracts, adding jobs to the local economy. Mt. Hope did not incur any project expenses or any administrative costs for the project. The Dunloup Creek Watershed Association advocated for the project, leading the effort in the community and with congressional representatives. This project was one of only two Public Law 566 watershed projects to be authorized by Congress in recent years. NRCS implemented the project and provided 90% of the funding. The State of West Virginia provided the remaining 10% funding.

Project participation is voluntary, made available through a signup, for all properties located in the Dunloup Creek 100-year floodplain. Properties were prioritized, with homes flooding on the first floor having the highest priority. Newsletters, public meetings, and personal visits to every eligible property were conducted to inform residents about the buyout. Participation was higher than expected, and there's still a waiting list. In Mt. Hope, 110 active water/sewage customers pursued the buyout and were removed from the City water/sewage systems. The remaining buyout properties were outside the City limits and served by the White Oak Public Service District.

The project was implemented between 2010 and 2016, with two rounds of signups and ranking of properties. Relative to other watershed projects and flood recovery efforts, this project was completed in a short timeframe. American Recovery and Reinvestment Act (stimulus) funds were added to the project to increase the number of buyouts that could be offered. Participants received the buyout payment at their property closing and, in many cases, additional funds for relocation assistance.

Findings:

The findings in this report are based solely on Mt. Hope's reports to the West Virginia Public Service Commission and NRCS project casefiles. All references, calculations, and supporting documents are appended. This analysis uses the PSC annual utility reports of Mt. Hope for the years 2009 to 2015 to analyze the impact on the utility rate increases. However, the city has raised rates once again in July 2016, further elevating the impact on their residential customers. The combined minimum rate for the residential customer has significantly increased by \$32.88 per month from 2009 to 2016. Based on a 3,000 gallon usage for both water and sewage, a residential customer can expect to pay roughly \$96.51 a month for a combined utility bill.



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This report answers two questions:

1. What is the impact of the voluntary floodplain buyout project on the remaining customers' bills? For the 138 remaining water customers in 2015, the average water bill is \$42.92 per month. Of this amount, **\$4.27** of the monthly bill is attributed to the reduction of customers due to the buyout. For the 469 remaining water/sewage customers, the average customer bill in 2015 is \$92.19 per month. Of this amount, **\$9.27** of the monthly bill is attributed to the reduction of customers due to the buyout. Rate increases above these amounts are not related to the buyout project impacts.

2. What is the impact of the voluntary floodplain buyout project on the future revenue of Mt. Hope's Water and Sewer Systems? Revenue impacts to the Mt. Hope Water and Sewer System amount to a permanent reduction of \$59,241 in revenue per year due to the loss of customers as a result of the buyout. The revenue lost due to the buyout, as well as additional revenue, is now being made up by increases to customers' water and sewer bills.



March 2010 Flooding in Mt. Hope



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Introduction

For the City of Mt. Hope, the average residential water and sewage customer bill has radically increased from \$55.60 in 2009 to \$92.19 in 2015. However, in July 2016 the rates have drastically increased once again causing the remaining residential customers to pay a combined bill of \$96.51 for a 3,000 gallon usage rate. The purpose of this report is to quantify the impact of the Dunloup Creek Voluntary Floodplain Buyout project on the changes in the customer base and average utility bill for the City of Mt. Hope utilities only, specifically the water and sewage usage, and its potential impact on the loss of revenues and the remaining customers.

The economic impacts on the utility systems are based on a 6-year timeframe of the floodplain buyout project, from 2010 to 2015. Although the buyout was short term (6 years), the impacts are recognized as permanent impacts, in perpetuity, to the customers' bills and to the revenue loss to Mt. Hope's systems. There is no connection between the lifespans of Mt. Hope's various debts and the voluntary floodplain buyout.

The floodplain buyout program began purchasing homes in 2010 in Fayette County, WV. A total of 219 properties were acquired between 2010 and 2016. No properties were purchased in Mt. Hope in 2015 and 2016. Figure 1 displays the 219 properties that were purchased by type. Of these 219 properties, this analysis focuses on the 110 properties that were connected to the Mt. Hope water and sewage system. This states that over half of the total buyout properties had water and sewage hookups from the treatment plant. Properties located in Mt. Hope and Kilsyth both benefited from the water and sewage treatment plant in Mt. Hope, WV. All of the properties bought within this location were assumed to have water and sewage hookups to the treatment plant and were assumed to be paying customers. This analysis also assumes that vacant lots, vacant residences, and vacant buildings purchased in the buyout did not have hookups or were not paying for unused services.

Some of the participants of the buyout have returned to the Mt. Hope water and sewage system in their new homes, but have moved out of the area with high flood risk. With use of the NRCS records, 19 of the buyout participants with new properties were known to have returned to Mt. Hope's water and sewage system.

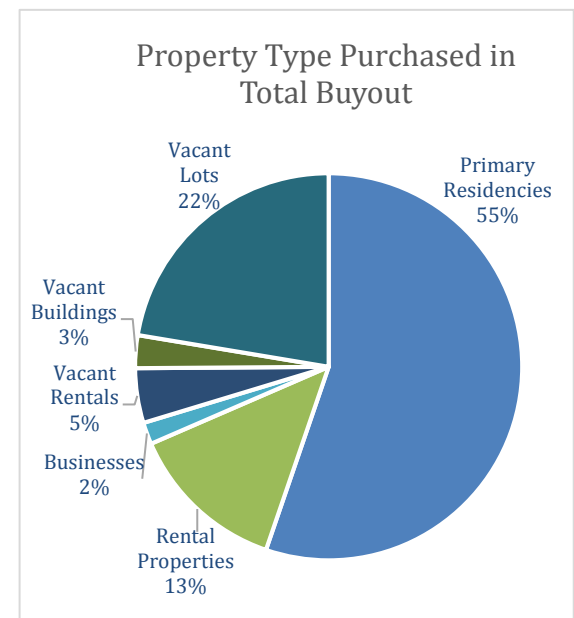


Figure 1. Buyout Properties Distribution

Table 1 displays the annual number of properties purchased in the buyout that were on the system, and the number of properties that returned to the system each year. The majority of the properties were purchased in 2013, with a total of 42 properties. This analysis assumes that if a participant returned to the system, there was an immediate move from the participants' old property to the new property causing no sales loss for the plant. Additional information on the buyout properties is included in the Appendix.

Table 1. Annual and Total Buyout Count

Buyout Closings	2010	2011	2012	2013	2014	Total
On Mt. Hope System	6	24	16	42	22	110
Returned to System	1	7	3	4	4	19
Net Loss to System	5	17	13	38	18	91



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All of the rental properties were limited to one or two occupants per rental unit, which consumes at a rate comparable to a residential property. The four businesses participating in the buyout included Sam's Place restaurant/bar, Edge Supply auto detailing business, Dorado's Hardware store, and a general storage building. Along with the primary residential properties, this analysis assumes that the rental properties and businesses purchased in the buyout consume at the same gallon rate and are categorized as residential properties.

Over the four years of the voluntary buyout, the project contributed to a net loss of 91 customers to the water and sewage utility system. Over 72 percent of these customers listed their properties as the primary residences.

Concurrent Economic Events in Mt. Hope from 2010 to 2015

Figure 2 illustrates that the population for Mt. Hope has been declining since the 1980's – from 1,849 to 1,377 – and has only incurred a slight decrease during the project time frame. Many other changes in the region have had a significant impact on Mt. Hope and the utility system customer base. The customer base for the utility system is greater than the Mt. Hope population since the Mt. Hope water and sewage system extends its services beyond the city municipality. The buyout removed 91 customers from the Mt. Hope utility system.

From 1990 to 2010, Mt. Hope's population declined by an average of 8 residents per year. Given the average population loss, it would take approximately 11 years for the city to lose the same number of customers who took advantage of the buyout program.

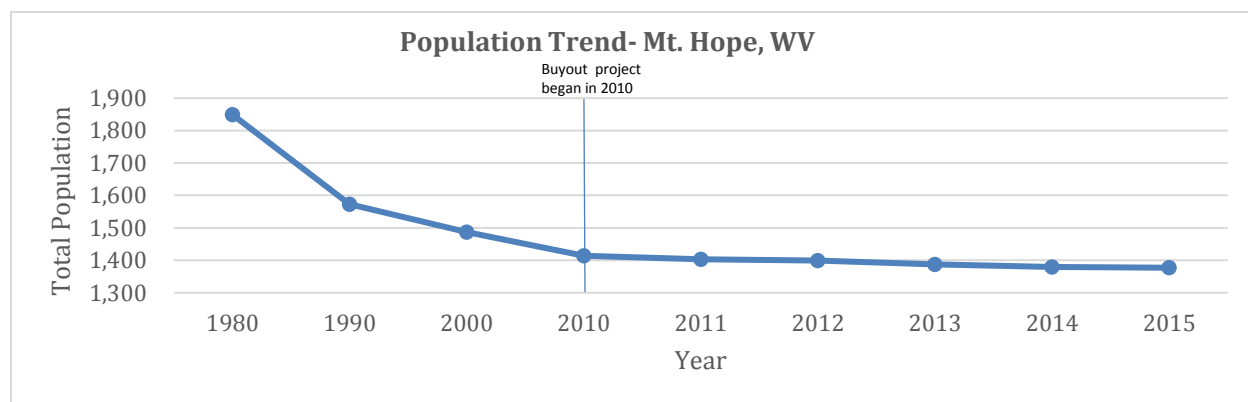


Figure 2. Mt. Hope Population, US Census

- Georgia-Pacific Wood Processing Plant begins shut down in 2008 & closes in 2010; City loses largest system customer & predicts a 60% rate increase will be needed as a result
- Mt. Hope High School closes
- Summit Bechtel Boy Scout Camp brings new revenue and potentially new debt to Mt. Hope
- City population and economic base continues downward trend before buyout and continues to steadily decline during project years
- Mt. Hope removes approximately 30 buildings through its own dilapidated properties program
- Water and sewage rates remain constant for several years but rapidly increase within last decade



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Impacts to Customer Water Bills and Water/Sewage Bills

This section of the analysis looks at the project impact from two perspectives - on customers' bills and on the revenue for the Mt. Hope systems. The analysis is based on the life of the buyout project (6 years) and recognizes that this impact is a long term, permanent change in the customer base, so the impacts are extended into perpetuity.

- For the 469 remaining combined system customers in 2015, each would pay an additional \$9.27 per month which would equate to an additional permanent annual cost of \$111.24 per customer per year.
- For the 138 remaining water system customers in 2015, each would pay an additional \$4.27 per month which would equate to an additional permanent annual cost of \$51.24 per customer per year.
- The buyout resulted in a permanent reduction in revenue to the Mt. Hope water and sewer accounts by \$59,241 per year. This revenue amount, and more, is now being made up by increases to customers' bills.

Discussion of the Mt. Hope Water System

For a simple understanding of the Mt. Hope water system, this report will briefly review the system's gallons sold and minimum rates, operating costs and revenues, and metered water sales to customers. Data does not control for inflation in the observed time periods. The historical water rates are included in the Appendix.

As the population in Mt. Hope and its surrounding areas on the Mt. Hope water system have decreased over time, so has the amount of total gallons sold. The amount of gallons sold was relatively stable until 2008, when the shutdown of the local manufacturing plant began. Georgia-Pacific officially closed in 2010, shortly before the buyout began in the same year. From 2000 to 2013, the rates increased only once and the minimum bill went from \$18.00 to \$18.50. From 2013 to 2016, the minimum monthly bill increased by nearly 80 percent from \$18.50 to \$32.36. Figure 3 displays the gallons sold from the year 2000 to 2016. The figure also illustrates the customer minimum monthly water bill associated with a 2,000 gallons usage or less over the same timeframe. The average residential customer in the Mt. Hope water system consumes slightly more than 3,000 gallons a month.

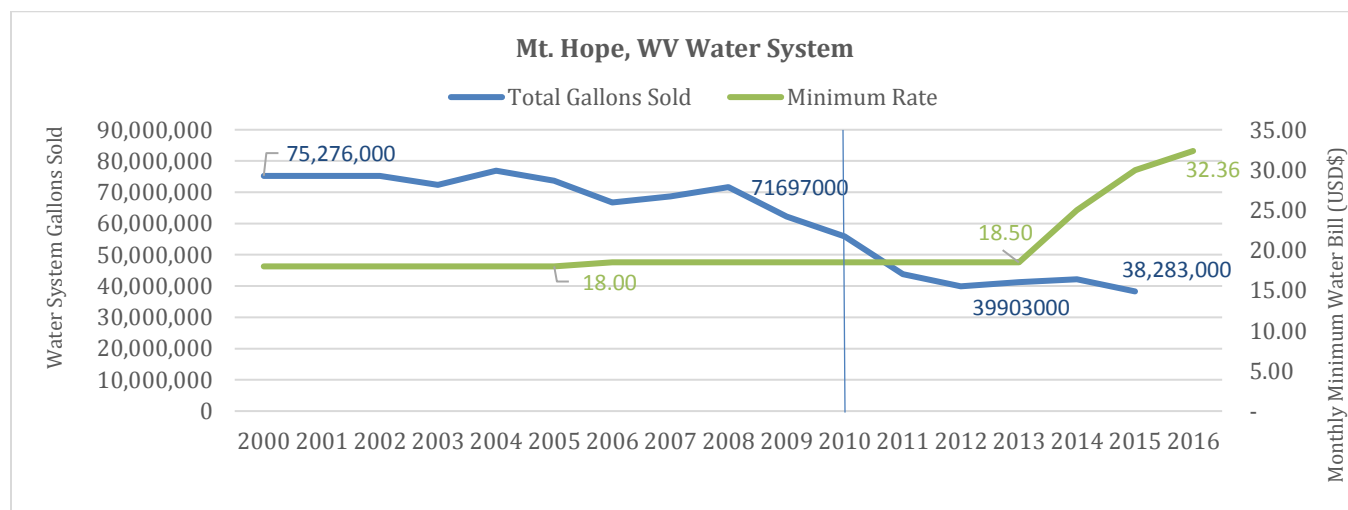


Figure 3. Mt. Hope Water Rates & Gallons Sold



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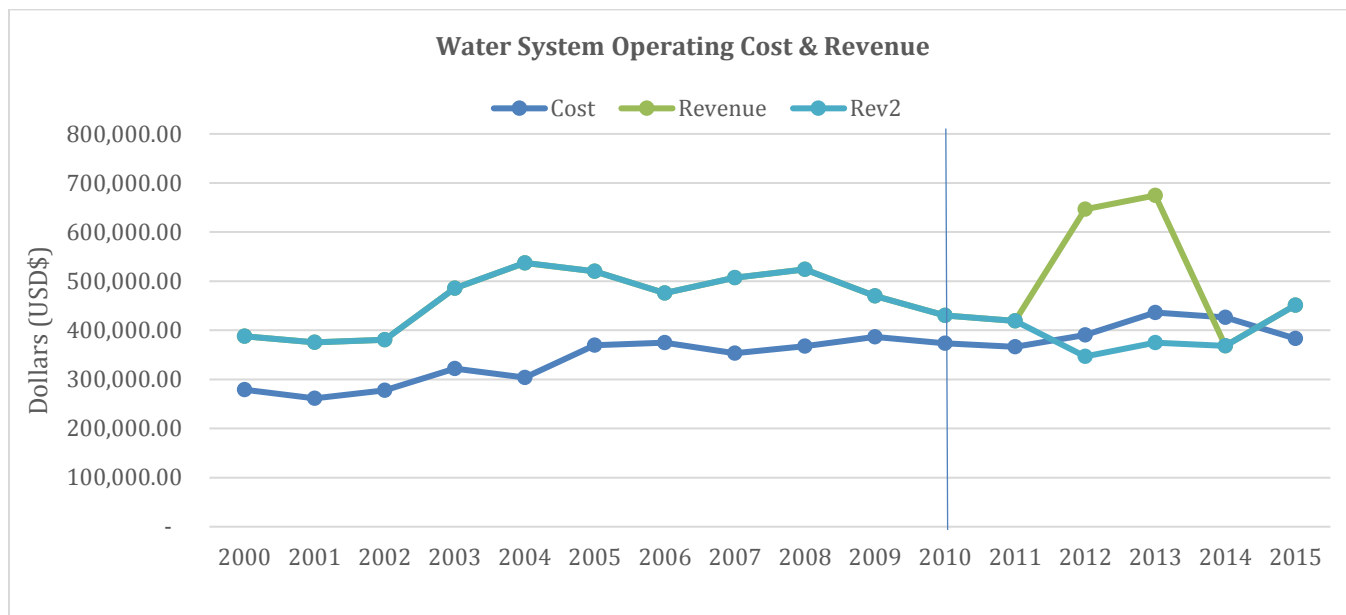


Figure 4. Mt. Hope Water System Yearly Operating Costs and Revenues

Figure 4 shows the operating costs and revenues of the water plant from 2000 to 2015. Data was collected from the Annual Public Service Commission reports, and is included in the Appendix. From 2000 to 2015, the operating costs increased from \$279,318 to \$383,596 respectively. The operating revenues have also increased over the observed time period from \$387,892 to \$451,274 in 2015. The “Revenue” line on Figure 4 displays all of the revenues accrued over time, including additional payments in 2012 from the National Scout Reserve and in 2013 from ‘other sales to public authorities’. The trend line “Rev2” displays the revenue trend excluding the ‘other sales’ payments.

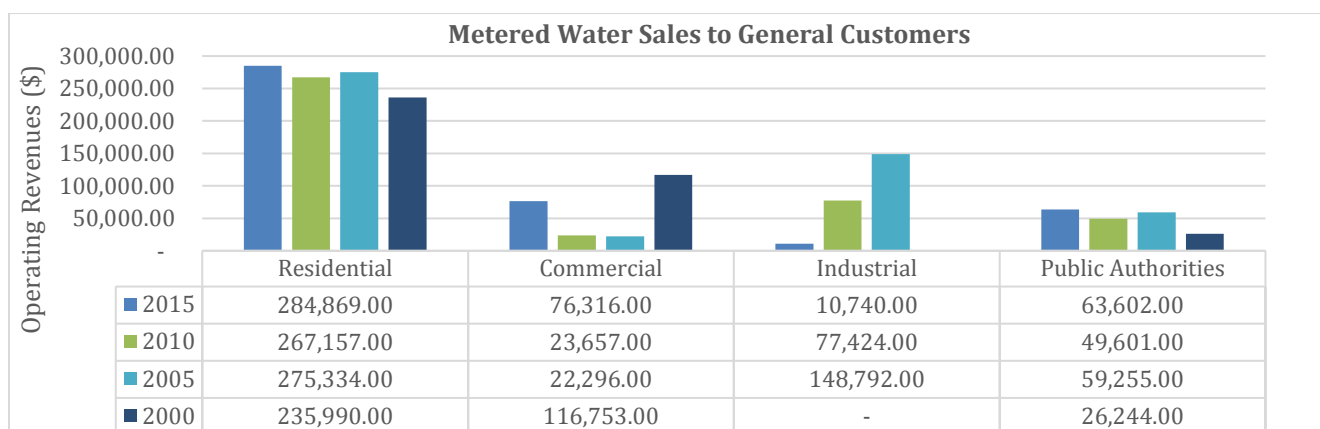


Figure 5. Mt. Hope Metered Sales to Customers

Figure 5 shows the changes in Mt. Hope’s water accounts from 2000 through 2015. This information was available from Mt. Hope’s Pro Forma Financial Statements filed with the West Virginia Public Service Commission. There was no industrial category information in 2000. On average, the residential customers represent 62 percent of the total metered water sales over the observed time frame. Commercial, industrial,



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and public authorities' sales signify 15, 13, and 11 percent of the total metered water sales respectively. **Residential and public authorities' sales increased over time, while commercial and industrial sales had a downward trend.**

Water System Revenue Loss

Data for the water system was collected from the West Virginia Public Service Commission website. The annual number of customers, gallons sold, metered sales by customer type, and operational revenues and costs were collected from reports submitted to the PSC website by the *City of Mount Hope -Municipality Water and Sewage Annual Reports*. The water and sewage customer charge rates were collected from various reports of the *Rates, Rules and Regulations for Furnishing Water and Sewage Reports* for the City of Mt. Hope. Other factors that are not considered within this analysis for the water and sewage lines include the tap fees, 2% utility tax, along with the customer based leak adjustment cost of \$0.75 per 1,000 gallons for a bill that reflects unusual water consumption attributed to leakage. This analysis focuses on the buyout impact from 2010 to 2015; no properties were removed from Mt. Hope's system due the buyout in 2015 or 2016. It was also assumed that all buyout customers, including the four businesses and three rental properties, consumed at the average residential user rate. Additional data on the calculated monthly water bill and water utility rates are provided in the Appendix.

Year	Change in Customers		Change in Gallon Sold			Estimated Annual Revenue	
	Total Customers	Annual Change in Customers	Total Gallons Sold Annually	Average Monthly Consumption (Per Customer)	Average Monthly Bill (Per Customer)	Estimated Annual Customer Revenue (Rounded\$)	Estimated Annual Customer Revenue (2015 USD\$)
2009	750	-	30,969,000	3,441	29.38	264,416	292,122
2010	751	1	29,922,000	3,320	28.47	256,552	278,860
2011	738	-13	28,747,000	3,246	27.91	247,150	260,421
2012	715	-23	27,295,000	3,181	27.42	235,249	242,855
2013	701	-14	25,670,000	3,052	26.44	222,409	226,285
2014	657	-44	25,195,000	3,196	37.16	293,003	293,351
2015	607	-50	22,277,000	3,058	42.92	312,655	312,655

Tables 2 and 3 provide trend data on the gallons sold and the revenue loss impacts for the residential customer base of the water system. From 2009 to 2015, the water system decreased in gallons sold by 8,692,000; however with the rate increases for the utility system, the plant increased customer revenue by \$48,239.44 over the same period. The buyout accounted for a decline of 3,439,481 in gallons sold between 2010 and 2014, which accounts for almost 40 percent of the gallon loss from 2009 to 2015. No properties were purchased in Mt. Hope from 2015 to 2016. The average monthly consumption decreased by 383 gallons per customer between the observed timeframe. However, from 2009 to 2015, the average monthly water bill increased by \$13.54 per customer, which more than compensates for the decrease in customer base and loss in gallons sold.



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Table 3. Mt. Hope, WV Water System Revenue Loss from Buyout

Year	Net Buyout Customer Loss	Loss in Gallons Sold from Buyout		Revenue Loss from Buyout		
		Average Monthly Consumption (Per Customer)	Loss in Gallons Sold From Buyout Removed Customers	Average Monthly Bill (Per Customer)	Revenue Loss from Buyout Removed Customers (Rounded\$)	Revenue Loss from Buyout Removed Customers (2015 USD\$)
2010	5	3,320	199,214	28.47	1,708	1,857
2011	17	3,246	662,194	27.91	5,693	5,999
2012	13	3,181	496,273	27.42	4,277	4,416
2013	38	3,052	1,391,526	26.44	12,056	12,267
2014	18	3,196	690,274	37.16	8,027	8,037

Addressing the assertion that ‘If it weren’t for the buyout, Mt. Hope wouldn’t have had to raise water rates.’ What would be the typical water rate increase for this time period, without the influence of a buyout?

This analysis assumes that without the buyout, the customer base would have remained constant and no rate increases would have been necessary. What would happen if it were assumed that the water rates, customer base, and customer usage had remained the same from 2010 to 2015, causing the average monthly bill to remain constant? The residential projected gallons sold for the 751 existing customers in 2010 over 6 years is 179,532,000 gallons. Due to the buyout causing a decrease in the customer base for five years, there would be a shortage of 9,003,840 gallons sold for the observed time period. The residential projected water revenue for 751 customers over 6 years is \$1, 539,311.40 (2010 USD\$). Due to the buyout loss of 91 customers, there would be a shortage of \$77,210.64 (2010 USD\$) in water revenue for the observed time period. During this project time frame 53 additional residential customers who were not part of the buyout left the system. The **remaining residential customers of 607 in 2015 would have to experience a \$1.77 increase to their monthly bill for a total of six years to cover the imposed revenue loss** of the buyout. Exact calculations for these numbers are provided in the Appendix.

However, once the customers are removed from the system, that customer loss will not be replenished. This analysis expands to estimate the perpetual loss for the water system due to the buyout. If the 91 buyout customers paid the average monthly bill in 2010, they would generate a total revenue of \$31,089.24 annually. To cover that loss each year, the remaining 607 customers in 2015 would each have to pay an additional \$4.27 on their monthly bill raising their average cost from \$28.47 in 2010 to \$32.74 each year after 2015.

Discussion of the Mt. Hope Sewage System

For a basic understanding of the Mt. Hope sewage system, this report will briefly review the system’s gallons sold and minimum rates, operating costs and revenues, and metered sewage sales to customers. Data does not control for inflation in the observed time periods. The Mt. Hope sewage system has a smaller customer base than the water system. The historical sewage rates are included in the Appendix.

As the population in Mt. Hope and its surrounding areas on the Mt. Hope sewage system have decreased over time, so has the amount of total gallons sold for the sewage system. The amount of gallons sold was on a slight decline but relatively stable until 2008, when the shutdown of the local manufacturing plant began. The plant, Georgia-Pacific, officially closed in 2010 shortly before the buyout began. To cover for the revenue loss caused by the decrease in gallons sold, there was an exponential increase the utility rates. From 2000 to 2016 the



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minimum monthly sewage bill increased from \$12.00 to \$35.04. Residential customers are paying nearly 3 times more than they paid 15 years ago. Figure 6 displays the gallons sold from the year 2000 to 2016. The figure also illustrates the increases over time in the customer minimum monthly sewage bill associated with a 2,000 gallons usage or less. The average residential customer in the Mt. Hope sewage system consumes slightly more than 3,000 gallons a month.

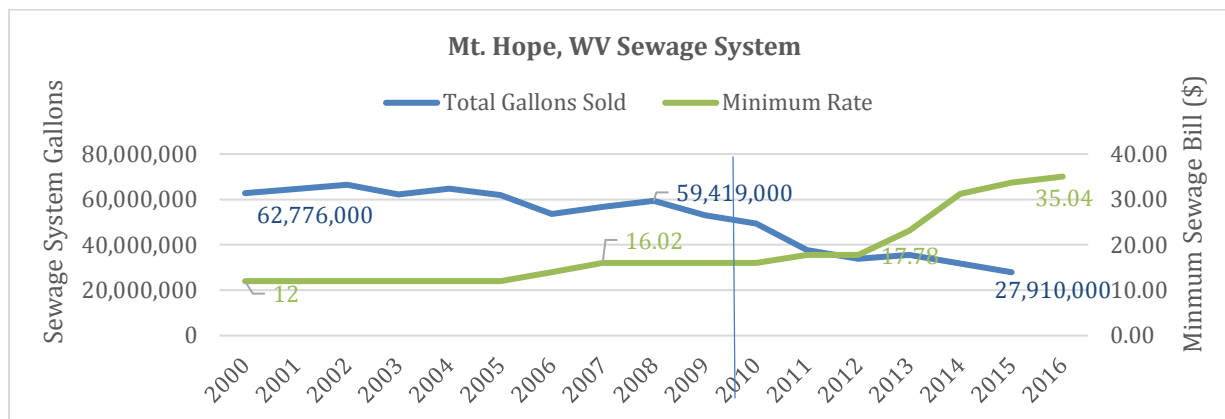


Figure 6. Mt. Hope Sewage Rates & Gallons Sold

Figure 7 displays the sewage plant's operating costs and revenues from 2000 to 2015. Data was collected from the Annual Public Service Commission reports, and is included in the Appendix. Operating costs increased from \$183,784 to \$268,907 respectively. The operating revenues have also increased over the observed time period from \$331,022 to \$449,926 in 2015.

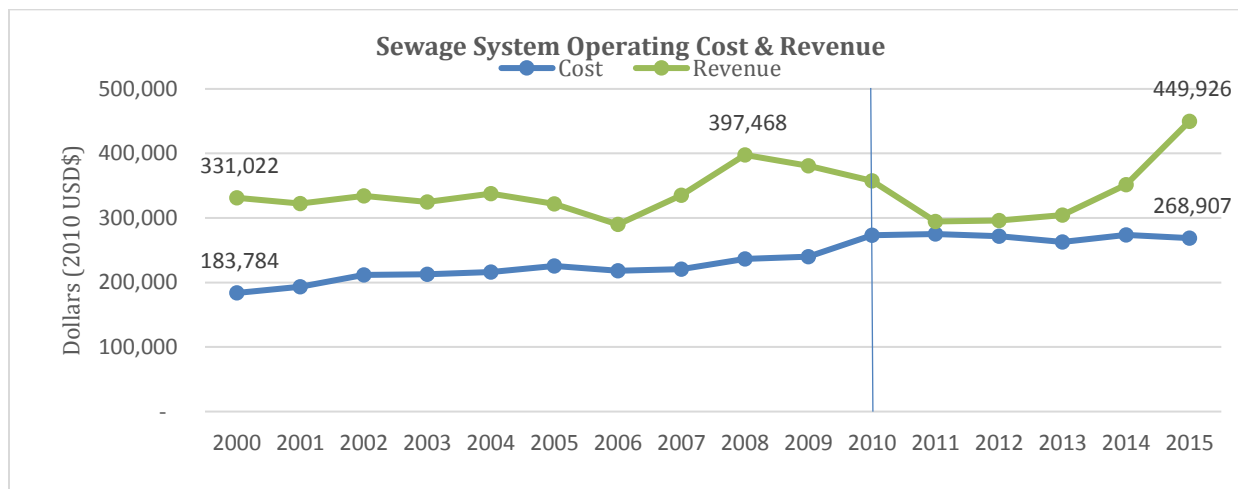


Figure 7. Mt. Hope Sewage System Yearly Operating Costs and Revenues



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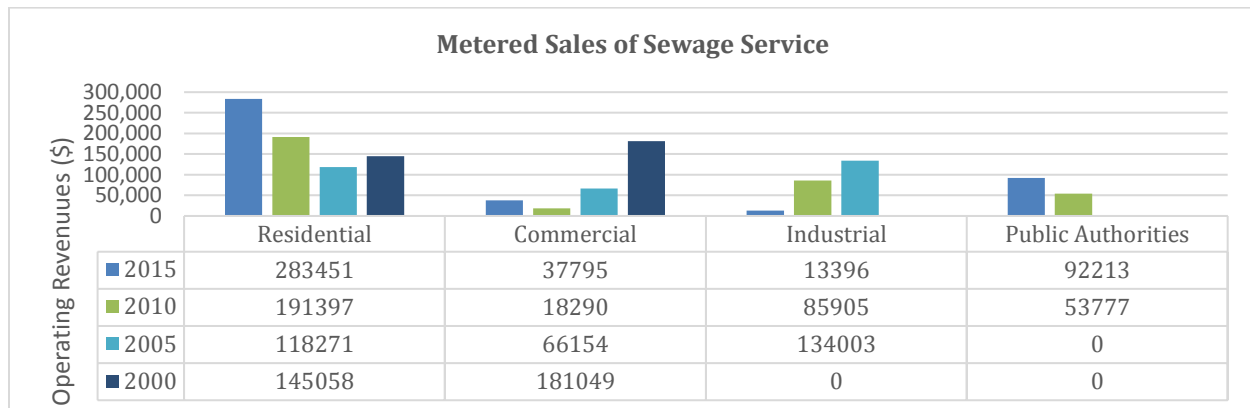


Figure 8. Mt. Hope Metered Sales to Customers

Figure 8 shows the changes in Mt. Hope's sewage accounts from 2000 through 2015. This information was available from Mt. Hope's Pro Forma Financial Statements filed with the Public Service Commission. There was no industrial category information in 2000 and no information on public authority accounts in 2000 and 2005. On average, the residential customers represent 66 percent of the total metered sewage sales in 2015. Commercial, industrial, and public authorities' sales signify 9, 3, and 22 percent of the total metered sewage sales, respectively. **Like the water system accounts, the residential and public authorities' sales increased over time, while commercial and industrial sales had a downward trend.**

Sewage System Revenue Loss

Data for the sewage system was collected from the West Virginia Public Service Commission website. The annual number of customers, gallons sold, metered sales by customer type, and operational revenues and costs were collected from the *City of Mt. Hope- Municipality Water and Sewage Annual Reports*. The water and sewage customer charge rates were collected from various reports of the *Rates, Rules and Regulations for Furnishing Water and Sewage Reports* for the City of Mt. Hope. Other factors that are not considered within this analysis for the water and sewage lines include the tap fees, 2% utility tax, along with the customer based leak adjustment cost of \$0.75 per 1,000 gallons for a bill that reflects unusual water consumption attributed to leakage. This analysis focuses on the impact from 2010 to 2015. It was also assumed that all buyout customers, including the four businesses and three rental properties, consumed at the average residential user rate. Additional data on the calculated monthly water bill and water utility rates are provided in the Appendix.

Table 4. Mt. Hope, WV Sewage System Residential Customer Revenue							
Year	Change in Customers		Change in Gallons Sold		Estimated Annual Revenue		
	Total Customers	Annual Change in Customers	Total Gallons Sold Annually	Average Monthly Consumption (Per Customer)	Annual Monthly Bill (Per Customer)	Estimated Annual Customer Revenue (Rounded\$)	Estimated Annual Customer Revenue (2015 USD\$)
2009	538	-	21,967,000	3,403	26.22	169,255	186,990
2010	594	56	23,824,000	3,342	25.78	183,750	199,728
2011	581	-13	23,078,000	3,310	28.35	197,674	208,288
2012	561	-20	21,740,000	3,229	27.70	186,482	192,511
2013	549	-12	20,332,000	3,086	34.51	227,381	231,344
2014	509	-40	19,327,000	3,164	47.71	291,384	291,729
2015	469	-40	16,986,000	3,018	49.27	277,275	277,275



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Table 5. Mt. Hope, WV Sewage System Revenue Loss from Buyout

Year	Net Buyout Customer Loss	Loss in Gallons Sold from Buyout		Revenue Loss from Buyout		
		Average Monthly Consumption (Per Customer)	Loss in Gallons Sold from Buyout Removed Customers	Average Monthly Bill (Per Customer)	Revenue Loss from Buyout Removed Customers (Rounded\$)	Revenue Loss from Buyout Removed Customers (2015 USD\$)
2010	5	3,342	200,539	25.78	1,547	1,681
2011	17	3,310	675,260	28.35	5,784	6,047
2012	13	3,229	503,779	27.70	4,321	4,461
2013	38	3,086	1,407,315	34.51	15,739	16,013
2014	18	3,164	683,470	47.71	10,304	10,317

Tables 4 and 5 provide trend data on the gallons sold and the revenue loss impact of the buyout for the residential customer base of the sewage system. From 2009 to 2015, the sewage system decreased in residential gallons sold by 4,981,000 however with the rate increases for the utility system, the plant increased in their residential customer revenue by \$90,285.15 (2015 USD\$) over the same period. The buyout accounted for a total of 3,470,362 gallons lost between 2010 and 2014, which accounts for over 70 percent of the residential gallon loss from 2009 to 2015. The average monthly consumption decreased by 384 gallons per customer between the observed timeframe. The buyout lead to an accumulated loss in residential customer revenue of \$38,518.75 (2015 USD\$) from 2010 to 2014. This is calculated from the sum of the annual revenue loss from buyout customers equation listed in the Appendix. However, from 2009 to 2015, the average monthly sewage bill increased by \$23.05 per customer which more than compensates for the decrease in the customer base and the loss in gallons sold.

Addressing the assertion that “If it weren’t for the buyout, Mt. Hope wouldn’t have had to raise sewage rates.” What would be the typical sewage rate increase for this time period, without the influence of the buyout?

This analysis assumes that without the buyout program, the customer base would have remained constant and no rate increases would have been necessary. What would happen to the analysis if it were assumed that the sewage utility rates, customer base, and customer usage had remained the same from 2010 to 2015, causing the average monthly bill to remain constant? The residential projected gallons sold for the 594 existing customers in 2010 over 6 years is 142,944,000 gallons. Due to the decrease in the customer base from the five year buyout, there would be a shortage of 9,003,840 gallons sold for the observed time period. The residential projected sewage utility revenue for 594 customers over 6 years is \$1,102,599.04(2010 USD\$). Due to the buyout and loss of 91 customers, there would be a shortage of \$69,915.36 (2010 USD\$) in sewage utility revenue for the observed time period. During this project time frame 31 additional residential customers had left the system. **The remaining residential customers of 469 in 2015 would have to experience a \$2.07 increase to their monthly bill for a total of six years to recover the imposed revenue loss of the buyout.** Exact calculations for these numbers are provided in the Appendix.

However once the customers are removed from the system, that customer loss will not be replenished. This analysis expands to estimate the perpetual loss for the sewage system due to the buyout. If the 91 buyout customers paid the average monthly bill in 2010, they would generate a total revenue of \$28,150.24 annually. To cover that loss each year, the remaining 469 customers in 2015 would each have to pay an additional \$5.00 on their monthly bill raising their average cost from \$25.78 in 2010 to \$30.78 each year after 2015.

Mt. Hope has asserted that the buyout project removed too many customers from the Kilysth sewage line extension, causing the city to experience financial hardship. However, the extension would have taken place



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regardless of the buyout and continues to serve 115 of the 150 households in this area. The project removed 35 properties from 2010 to 2014 that were expected to connect to the new Kilsyth sewage line extension. Even with the reduced number of households, revenues to the sewage system continue to exceed operating costs as shown in Figure 7.



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Breakdown of Properties Purchased in Dunloup Creek Voluntary Buyout Project from 2010 to 2014

Tables 2 and 3 display the distribution of the properties that were bought out each year by the program, along with what types of buildings were known to return onto the system each year. These tables also provide a total count and distribution of property types.

Table 2. Share of Properties Purchased in the Buyout on Mt. Hope Water & Sewage System

On Mt. Hope System	2010	2011	2012	2013	2014	Total	
	Count	Count	Count	Count	Count	Count	Percent
Primary Residence	6	24	16	32	4	82	74.5%
Rental Property				9	15	24	21.9%
Business				1	3	4	3.6%
Total	6	24	16	42	22	110	100%

Table 3. Share of Properties Returned onto System

Returned to System	2010	2011	2012	2013	2014	Total	
	Count	Count	Count	Count	Count	Count	Percent
Primary Residence	1	7	3	3	2	16	84.2%
Rental Property				1	2	3	15.8%
Business							
Total	1	7	3	4	4	19	100%

Table 4 below displays the annual distribution of the net loss of water and sewage customers from the buyout. There is a larger distribution of primary residential properties due to the ranking system of the buyout program. If a property was listed as a primary residence, it had a higher level urgency within the floodplain than the other types of properties.

Table 4. Share of Properties as Net Loss to System

Net Loss	2010	2011	2012	2013	2014	Total	
	Count	Count	Count	Count	Count	Count	Percent
Primary Residence	5	17	13	29	2	66	72.5%
Rental Property				8	13	21	23.1%
Business				1	3	4	4.4%
Total	5	17	13	38	18	91	100%



Dunloup Creek Voluntary Buyout Project

Timeline

Date	Event	Source
1965	Sponsors seek federal help for flooding	NRCS
1965-2004	No funds, no alternatives, sporadic sponsorship	NRCS
1965	Georgia Pacific Plant Opens	DEP permit no WV0021776
2001	Flood – Mt. Hope City Hall loses records	Mt. Hope Comprehensive Plan
2004	NRCS re-plans project; proposes buyout	NRCS
2006-2007	Public Meetings on Buyout	Environmental Impact Statement (EIS)
2007	EIS recommends buyout; predicts impacts	NRCS
2007	Mt. Hope Bond for Kilsyth, Price Hill sewage line ext.	Bond Certificate from Mt. Hope
2007-2008	Mayor/NRCS discuss impacts; NRCS requests data to quantify impacts; no data provided	NRCS
2008-2009	Construction of sewage line	City of Mt. Hope
2009	Buyout authorized by Congress	Congressional Authorization
June – Sept 2009	Buyout Signup Period	NRCS
2009	NRCS requests impact data from City; no data provided	Teleconference
November 2009	Boy Scouts Announcement	Boy Scouts website
July 2010	Georgia Pacific (GP) closes	Beckley Register Herald
August 2010	1 st house buyout	NRCS
2010	NRCS requests impact data from City; no data provided	Teleconference
January 2011	NRCS initiates effort to quantify utility impacts by proposing formula	NRCS
May 2011	Mt. Hope anticipates \$25,000/month + \$3 million from boy scouts	Beckley Register Herald
June 2011	Mt. Hope High School closes	Beckley Register Herald
June 2011	Mt. Hope applies for \$2.3 million for boy scouts water line, projects rate increase, cites loss of GP as largest customer and continuous population losses	IJDC loan application
August 2011	Mt. Hope seeks grant \$300,000 for soft cost for boy scout line & \$1.7 million construction	WV Rural Water Association newsletter
May 2012	Mt. Hope & boy scouts approve agreement for \$25,000/month with more funding in future	WHSV television station
April 2012	Mayor cites boy scouts as replacement for GP losses	National Public Radio
2012	NRCS requests impact data from City; no data provided	
2013	City applauds buyouts of floodplain and dilapidated properties; cites reduction in emergency costs	Mt. Hope Comprehensive Plan
2013	NRCS requests impact data from City; no data provided	
July 2013	Mt. Hope receives \$3 million from boy scouts	WV Dept Commerce news release
February 2014	Mt. Hope requests \$1.7 million from NRCS for utilities	NRCS
March 2014	NRCS asks Sponsors' position on payment to Mt Hope	NRCS
March – May 2014	NRCS researches authorization re: utility payments	NRCS
April 2014	Sponsors advise NRCS to continue funding buyouts instead of utility payment to Mt. Hope	NRCS
April 2014	City provides further information on the \$1.7 million request, stating it includes lost B&O tax, etc.	City letter
July 2014	NRCS meets with White Oak PSD regarding I&I work	NRCS
October 2014	NRCS attends City Council Meeting	NRCS



Dunloup Creek Voluntary Buyout Project

October 2014	Congressman Rahall requests information on project impacts to Mt. Hope; NRCS responds	NRCS
January 2015	NRCS notifies Mt. Hope that payment for lost income is not authorized; but I&I work is	NRCS
February 18, 2015	NRCS meets with White Oak PSD & reaches agreement on I&I work; city does not attend meeting	NRCS
February 24, 2015	NRCS meets separately with Mayor Kessinger	NRCS
March 2015	NRCS & Fayette County Commission agree on I&I services contract	NRCS
March 6, 2015	Fayette County Commission holds meeting to work through issue	NRCS
April 23, 2015	Mt. Hope signs I&I agreement	NRCS
April 2015	Senator Manchin requests information on project impacts to Mt. Hope; NRCS responds	NRCS
June 2015	Mt. Hope receives 1st I&I payment	NRCS
July 2015	NRCS receives & responds to Beckley Register Herald FOIA request	NRCS
August 2015	NRCS attends meeting in Mt. Hope on utility issue	NRCS
May 2016	Mt. Hope receives final I&I payment	NRCS

Tabular Calculations for Utility Bills:

Average Gallons Consumed per Customer Annually:

$$\text{Average Monthly Consumption (Per Customer)} = \frac{\text{Total Gallons Sold Annually}}{\text{Total Customers}}$$

Average Monthly Bill per Customer:

$$\begin{aligned} \text{Average Monthly Bill (Per Customer)} &= \text{Use Average Monthly Rate} \\ &= \text{Minimum Rate (For 2000 Gallons)} + \text{Next 8,000 Gallons} * \text{Next 8,000 Gallon Rate} \\ &+ \text{Over 10,000 Gallons} * \text{Over 10,000 Gallon Rate} \end{aligned}$$

Estimated Annual Customer Revenue:

$$\text{Annual Customer Revenue (\$)} = \text{Average Monthly Bill per Customer} * \text{Total Customers} * 12\text{Months}$$

Annual Loss in Gallons Sold due to Buyout:

$$\text{Loss in Gallons Sold From Buyout Removed Customers (\$)} = \frac{\frac{\text{Average Gallons Consumed per Customer}}{\text{Net Buyout Customers}}}{12\text{Months}}$$



Dunloup Creek Voluntary Buyout Project

Perpetual Residential and Utility System Impacts from Buyout:

Perpetual Customer Impact per Year in 2010 USD\$:

Water Impact

Perpetual Customer Impact (\$) = Revenue Loss from Buyout Customers / Remaining 2015 Customers / N Months

$$\begin{aligned}\text{Projected Annual Revenue Loss} &= \text{Average Monthly Bill}_{2010} * \text{Net Buyout Customers} * 12 \text{ Months} \\ &= 28.47 * 91 * 12 \text{ months} = \$31,089.24\end{aligned}$$

$$\text{Monthly Perpetual Customer Impact} = 31,089.24 / 607 \text{ Customers} / 12 \text{ Months} = \mathbf{\$4.27 \text{ per customer}}$$

Sewage Impact

Perpetual Customer Impact (\$) = Revenue Loss from Buyout Customers / Remaining 2015 Customers / N Months

$$\begin{aligned}\text{Projected Annual Revenue Loss} &= \text{Average Monthly Bill}_{2010} * \text{Net Buyout Customers} * 12 \text{ Months} \\ &= 25.78 * 91 * 12 \text{ months} = \$28,150.24\end{aligned}$$

$$\text{Monthly Perpetual Customer Impact} = 28,150.24 / 469 \text{ Customers} / 12 \text{ Months} = \mathbf{\$5.00 \text{ per customer}}$$

Combined System Customer Impact

Total Monthly Perpetual Customer Impact (\$)

= Water System Perpetual Customer Impact (\$) + Sewage System Perpetual Customer Impact (\$)

$$= 4.27 \text{ (Water)} + 5.00 \text{ (Sewage)} = \mathbf{\$ 9.27 \text{ per customer}}$$

Utility System Impact:

This analysis assumes that the 91 customers lost in the buyout had both water and sewage hookups.

Expected Revenue Loss from Net Buyout Customers:

Total Revenue Loss from Buyout Customers per Year

$$= \text{Monthly Water Bill}_{2010} + \text{Monthly Sewage Bill}_{2010} * \text{Net Buyout Customers} * 12 \text{ Months}$$

$$= (28.47 + 25.78) = 54.25 * 91 \text{ Customers} * 12 \text{ Months} = \$59,241$$



Dunloup Creek Voluntary Buyout Project

Expected Revenue from Existing Customers in 2015:

Expected 2010 Revenue for Combined System Customers:

= Monthly Water Bill 2010+ Monthly Sewage Bill 2010* 2010 Combined System Customers*12 Months

= (28.47+25.78) = 54.25 * 594 Customers * 12 Months = \$386,694

Expected 2010 Revenue for Water Only System Customers:

= Monthly Water Bill 2010+ Monthly Sewage Bill 2010* 2010 Water Only Customers*12 Months

= 28.47 * 157 Customers * 12 Months = \$53,637.48

Total Expected Annual Revenue in 2010:

= Expected Revenue for Combined System Customers + Expected Revenue for Water Only System Customers

= \$386,694 + \$53,637.48 = \$440,331.48 per year

Estimated Revenue from Remaining Customers Per Year:

**This analysis only anticipates the revenue loss directly related to the customer loss from the buyout.*

= (Average Monthly Bill for Combined System Customers in 2010 + \$9.27) * (2010 Combined System Customers-NetBuyoutCustomers) * 12 Months + (Average Monthly Bill for Water System Only Customers in 2010+\$4.27)*2010 Water System Only Remaining Customers*12 Months

= (54.25+9.27)* Remaining Combined System Customers*12 Months + (28.47+4.27)*157 Water System Only Customers*12 Months

=63.52*(594-91)=503*12+32.74*157*12= \$383,406.72 + \$61,682.16= \$ 445,088.88 per year



Dunloup Creek Voluntary Buyout Project

Buyout Impact on Remaining Residential Water Customers

Assume that the water utility rates, customer base, and customer usage had remained the same from 2010 to 2015, causing the average monthly bill to remain constant. This analysis examines the buyout project as a 5-year purchasing period from 2010-2014.

Residential Projected Gallons Sold from 2010 to 2015:

751 customers * 3320 gallons per month * 12 months * 6 years = 179,532,000 gallons

Gallons Loss from Buyout Impact:

5 customers * 3320 gallons per month * 12 months * 5 years = 996,000 gallons (2010)

17 customers * 3320 gallons per month * 12 months * 4 years = 2,709,120 gallons (2011)

13 customers * 3320 gallons per month * 12 months * 3 years = 1,553,760 gallons (2012)

38 customers * 3320 gallons per month * 12 months * 2 years = 3,027,840 gallons (2013)

18 customers * 3320 gallons per month * 12 months * 1 years = 717,120 gallons (2014)

Total Buyout Impact: (9,003,840) gallon loss 5.0%

Residential Projected Revenue from 2010 to 2015:

751 customers * \$28.47 monthly bill * 12 months * 6 years = \$1,539,311.40

Revenue Loss from Buyout Impact:

5 customers * \$28.47 monthly bill * 12 months * 5 years = \$8,541.00

17 customers * \$28.47 monthly bill * 12 months * 4 years = \$23,231.52

13 customers * \$28.47 monthly bill * 12 months * 3 years = \$13,323.96

38 customers * \$28.47 monthly bill * 12 months * 2 years = \$25,964.64

18 customers * \$28.47 monthly bill * 12 months * 1 years = \$6,149.52

Total Buyout Impact: (\$77,210.64 \$USD 2010) revenue loss 5.0%

Increase in water rate needed to cover buyout loss:

$\$77,210.64 / 6 \text{ years} / 12 \text{ months} / 660 \text{ remaining customers} = \1.62 increase in bill for 6 years

However only 607 customers remain in 2015:

$\$77,210.64 / 6 \text{ years} / 12 \text{ months} / 607 \text{ remaining customers} = \1.77 increase in monthly bill for 6 years



Dunloup Creek Voluntary Buyout Project

Historical Water Rates

INEFFECT FROM JULY 1, 2002 AND EXPIRE JUNE 30, 2006

First 2,000 gallons used per month	\$ 9.00 per thousand gallons
Next 8,000 gallons used per month	\$ 7.33 per thousand gallons
All over 10,000 gallons used per month	\$ 5.22 per thousand gallons
Minimum monthly charge is \$18.00 per month.	

INEFFECT FROM JULY 1, 2006 AND EXPIRE JUNE 30, 2014

First 2,000 gallons used per month	\$ 9.25 per thousand gallons
Next 8,000 gallons used per month	\$ 7.55 per thousand gallons
All over 10,000 gallons used per month	\$ 5.40 per thousand gallons
Minimum monthly charge is \$18.50 per month.	

INEFFECT FROM JULY 1, 2014 AND EXPIRE JUNE 30, 2015

First 2,000 gallons used per month	\$ 12.49 per thousand gallons
Next 8,000 gallons used per month	\$ 10.19 per thousand gallons
All over 10,000 gallons used per month	\$ 7.29 per thousand gallons
Minimum monthly charge is \$24.98 per month.	

**Minimum charge based on size of the line and added fire protection service charge.*

INEFFECT FROM JULY 1, 2015 AND EXPIRE JUNE 30, 2016

First 2,000 gallons used per month	\$ 14.99 per thousand gallons
Next 8,000 gallons used per month	\$ 12.23 per thousand gallons
All over 10,000 gallons used per month	\$ 8.75 per thousand gallons
Minimum monthly charge is \$29.98 per month.	

**Minimum charge based on size of the line and added fire protection service charge.*

INEFFECT ON AND AFTER JULY 1, 2016

First 2,000 gallons used per month	\$ 16.18 per thousand gallons
Next 8,000 gallons used per month	\$ 13.21 per thousand gallons
All over 10,000 gallons used per month	\$ 9.45 per thousand gallons
Minimum monthly charge is \$32.36 per month.	

**Minimum charge based on size of the line and added fire protection service charge.*



Dunloup Creek Voluntary Buyout Project

Water System Reference Tables

Mt. Hope, WV Total Customer Water System Information					
Year	Total Customers	Annual Change	Total Gallons Sold Annually	Average Monthly Consumption (Per Customer)	Average Monthly Water Bill (Per Customer)
2000	848		75,276,000	7397	57.56 ⁺
2001	837	-11	75,245,000*	7492	58.25 ⁺
2002	842	5	75,214,000	7444	57.90
2003	836	-6	72,317,000	7209	56.18
2004	832	-4	76,902,000	7703	59.80
2005	823	-9	73,695,000	7462	58.04
2006	815	-8	66,780,000	6828	54.95
2007	815	0	68,689,000	7023	56.43
2008	817	2	71,697,000	7313	58.61
2009	818	1	62,247,000	6341	51.28
2010	819	1	55,908,000	5689	46.35
2011	805	-14	43,802,000	4534	37.63
2012	782	-23	39,903,000	4252	35.50
2013	770	-12	41,280,000	4468	37.13
2014	724	-46	42,159,000	4853	54.05
2015	681	-43	38,283,000	4685	62.81

*Note: Gallons sold information unavailable due to flooding in July 2001. All usage records at City Hall were destroyed. Average value of 2000 and 2002 was estimated for 2001 missing value.

Mt. Hope, WV Residential Customer Water System Information					
Year	Residential Customers	Annual Change	Residential Gallons Sold Annually	Average Monthly Consumption (Per Customer)	Average Monthly Water Bill (Per Customer)
2000	810		35,642,000	3667	30.22 ⁺
2001	793	-17	33,074,500*	3476	28.82 ⁺
2002	798	5	30,507,000	3186	26.69
2003	792	-6	29,962,000	3153	26.45
2004	787	-5	30,818,000	3263	27.26
2005	763	-24	31,703,000	3463	28.72
2006	751	-12	31,926,000	3543	30.15
2007	750	-1	30,567,000	3396	29.04
2008	750	0	30,708,000	3412	29.16
2009	750	0	30,969,000	3441	29.38
2010	751	1	29,922,000	3320	28.47
2011	738	-13	28,747,000	3246	27.91
2012	715	-23	27,295,000	3181	27.42
2013	701	-14	25,670,000	3052	26.44
2014	657	-44	25,195,000	3196	37.16
2015	607	-50	22,277,000	3058	42.92

*Note: Gallons sold information unavailable due to flooding in July 2001. All usage records at City Hall were destroyed. Average value of 2000 and 2002 was estimated for 2001 missing value.



Dunloup Creek Voluntary Buyout Project

WV Public Service Commission Water System 2015 Annual Report

Annual Report Section
Received By E-Filing on: 11/19/2015
AR Utility ID: 549
Class: B

WATER UTILITIES

(Class A & B)

ANNUAL REPORT For Year Ended 2015 For

NAME OF UTILITY: CITY OF MOUNT HOPE WATER FUND

PHYSICAL ADDRESS: 609 MAIN STREET - MOUNT HOPE, WV 25880

MAILING ADDRESS: PO BOX 151 - MOUNT HOPE, WV 25880

NAME OF MAYOR/ CHAIRPERSON/ PRESIDENT: MAYOR MICHAEL KESSINGER

PHYSICAL ADDRESS: 609 MAIN STREET - MOUNT HOPE, WV 25880

UTILITY CONTACT PERSON: CITY TREASURER - CINDY WINGROVE

TELEPHONE NO: 304 - 877 - 2211

E-MAIL ADDRESS: cwingrove@auditedinkmail.com

ACCOUNTING CONTACT PERSON: LAWRENCE MISITI - CITY AUDITOR

ACCOUNTANT'S MAILING ADDRESS: 211 PERDUE STREET - BECKLEY, WV 25801

TELEPHONE NO: 304 - 253 - 2401

E-MAIL ADDRESS: lsmsrc@hotmail.com

TO THE PUBLIC SERVICE COMMISSION OF WEST VIRGINIA

FOR THE YEAR ENDED: 06/30/2015

Utility Class: B

Revision Date: 11/16/2015

Audit Report Filed Date:



Dunloup Creek Voluntary Buyout Project

CITY OF MOUNT HOPE WATER FUND

11/16/2015

06/30/2015

OPERATING REVENUES (Account 400)

1. Report below the amount of operating revenue for the year for each prescribed account and the amount from the preceding year

2. List the gallons sold for the current year and preceding year.

3. Number of customers should be reported on the basis of number of meters, plus number of flat rate accounts, except that where separate meter readings are added for billing purposes, one customer shall be counted for each group of meters so added. The average number of customers means the average of the figures at the close of each month or each billing period.

4. Unmetered sales should be included below. The details of such sales should be given in a footnote Schedule 801A-801B.

Line No.	Amount (a)	Operating Revenues		Gallons Sold (000 omitted)		Average Number of Customers	
		Amount for Year (b)	Amount from Last Year (c)	for this Year (d)	from Last Year (e)	Number for Year (f)	Number from Last Year (g)
1	SALES OF WATER						
2	460. Unmetered Water Revenue						
3	461. Metered Water Revenue						
4	461.1 Metered Sales to Residential Customers	284,869	229,221	22,277	25,195	607	657
5	461.2 Metered Sales to Commercial Customers	76,316	43,686	3,719	6,319	56	54
6	461.3 Metered Sales to Industrial Customers	10,740	8,389	1,080	1,417	3	3
7	461.4 Metered Sales to Public Authorities	63,602	49,719	11,207	9,228	15	10
8	461.5 Metered Sales to Multiple Family Dwellings						
9	461.6 Metered Sales - Other						
10	Total Metered Revenue	435,527	330,995	38,283	42,159	681	724
11	462. Fire Protection Revenue						
12	462.1 Public Fire Protection						
13	462.2 Private Fire Protection	3,000	250				
14	Total Fire Protection	3,000	250	-	-	-	-
15	464. Other Sales to Public Authorities						
16	465. Sales to Irrigation Customers						
17	466. Sales for Resale	-	-	-	-		
18	467. Interdepartmental Sales						
19							
20	Total Sales of Water	438,527	331,245	38,283	42,159	681	724
21	OTHER OPERATING REVENUES						
22	469. Guaranteed Revenues	-	-				
23	470. Forfeited Discounts	12,147	9,291				
24	471. Miscellaneous Service Revenues	600	2,867				
25	472. Rents from Water Property	-	-				
26	473. Interdepartmental Rents	-	-				
27	474. Other Water Revenues	-	25,000				
28							
29	Total Other Operating Revenues	12,747	37,158				
30							
31	Total Water Operating Revenues	451,274	368,403				

600

600

CITY OF MOUNT HOPE WATER FUND		11/16/2015	06/30/2015	
WATER OPERATION AND MAINTENANCE EXPENSES (Continued)				
Line No.	Account (a)	Schedule Page Number (b)	Amount for Year (c)	Amount from Preceding Year (d)
1	CUSTOMER ACCOUNTS EXPENSES			
2	601.7 Salaries and Wages - Employees	606A	15,681	15,332
3	603.7 Salaries and Wages - Officers, Directors, etc.	606C	-	-
4	604.7 Employee Pensions and Benefits	607	418	405
5	615.7 Purchased Power	607B	-	-
6	616.7 Fuel for Power Production	607B	-	-
7	620.7 Materials and Supplies	607B	551	154
8	631.7-636.7 Contractual Services	608A-608F	-	-
9	641.7 Rental of Building/Real Property	607	-	-
10	642.7 Rental of Equipment	607	-	-
11	650.7 Transportation Expenses	607	-	-
12	656.7 -659.7 Insurance	607A	71	1,348
13	667.7 Regulatory Commission Expense - Other	605	-	-
14	670.7 Bad Debt Expense	607	13,921	6,103
15	675.7 Miscellaneous Expense	605	5,443	8,261
16	Total Customer Accounts Expenses		36,085	31,603
17	ADMINISTRATIVE AND GENERAL EXPENSES			
18	601.8 Salaries and Wages - Employees	606A	10,750	11,927
19	603.8 Salaries and Wages - Officers, Directors, etc.	606C	-	-
20	604.8 Employee Pensions and Benefits	607	-	-
21	615.8 Purchased Power	607B	-	-
22	616.8 Fuel for Power Production	607B	-	-
23	620.8 Materials and Supplies	607B	1,942	2,337
24	631.8-636.8 Contractual Services	608A-608F	5,876	5,917
25	641.8 Rental of Building/Real Property	607	4,847	4,846
26	642.8 Rental of Equipment	607	321	321
27	650.8 Transportation Expenses	607	-	-
28	656.8 -659.8 Insurance	607A	12,561	21,352
29	660.8 Advertising Expense	607	-	-
30	666.8 Reg. Commission Exp. - Amort. of Rate Case Exp.	605	-	-
31	667.8 Regulatory Commission Expense - Other	605	-	-
32	675.8 Miscellaneous Expenses	605	5,413	4,405
33	Total Administrative and General Expenses		41,710	51,105
34				
35	Total Operation and Maintenance Expenses		383,596	426,611
603D				



Dunloup Creek Project

Public Service Commission Water System Rates, Rules, and Regulations for Furnishings

RECEIVED

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COMMISSION
SECRETARY'S OFFICE

P.S.C. W. Va. No. 14
Canceling P.S.C. W. Va. No. 13

CITY OF MOUNT HOPE, a municipal corporation

OF

MOUNT HOPE, WEST VIRGINIA

RATES, RULES AND REGULATIONS FOR FURNISHING

WATER

at Mount Hope, Fayette County, West Virginia

Filed with THE PUBLIC SERVICE COMMISSION
of
WEST VIRGINIA

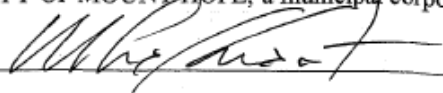

Issued June 4, 2014

Effective for service rendered on and after June 1, 2014
or as otherwise provided herein

Adopted by City Council on March 11,
2014 and issued by authority of an
order of The Public Service Commission
of West Virginia in Case No. 14-0563-W-MA
final May 29, 2014.

Issued by CITY OF MOUNT HOPE, a municipal corporation

By



Title

T:\TARIFFS\WATER\MT_HOPE_WVAW_(PENDING).DOC

CITY OF MOUNT HOPE (Water)

P.S.C. W.VA. Tariff No. 14
Original Sheet No. 3

(N) APPLICABILITY
Applicable within the entire territory served.

(C) AVAILABILITY
Available for general domestic, commercial and industrial sewer service.

(N) **IN EFFECT FROM JUNE 1, 2014 AND EXPIRE JUNE 30, 2015**

(C,I) RATES

First	2,000 gallons of water used	\$12.49 per 1,000 gallons
Next	8,000 gallons of water used	\$10.19 per 1,000 gallons
All over	10,000 gallons of water used	\$ 7.29 per 1,000 gallons

(C,I) MINIMUM CHARGE
No minimum bill will be rendered for less than \$24.98 per month, which is the equivalent of 2,000 gallons of usage with a 5/8" meter.

			<u>Equivalent Gallons</u>
(N)	5/8 inch meter	\$ 24.98	2,000
(N)	3/4 inch meter	\$ 37.47	3,000
(N)	1 inch meter	\$ 62.45	5,000
(N)	1 1/4 inch meter	\$ 91.18	7,300
(N)	1 1/2 inch meter	\$ 124.90	10,000
(N)	2 inch meter	\$ 199.84	16,000
(N)	3 inch meter	\$ 339.68	32,000
(N)	4 inch meter	\$ 624.50	50,000
(N)	6 inch meter	\$ 1249.00	100,000
(N)	8 inch meter	\$ 1998.40	160,000

(N) **IN EFFECT FROM JUNE 1, 2015 AND EXPIRE JUNE 30, 2016**

(C,I) RATES

First	2,000 gallons of water used	\$14.99 per 1,000 gallons
Next	8,000 gallons of water used	\$12.23 per 1,000 gallons
All over	10,000 gallons of water used	\$ 8.75 per 1,000 gallons

(N) Indicates new
(C) Indicates change in text
(I) Indicates increase

T:\TARIFFS\WATER\MT_HOPE_F14W_PENDING\DOC



Dunloup Creek Project

Buyout Impact on Remaining Residential Sewage Customers

Assume that the water utility rates, customer base, and customer usage had remained the same from 2010 to 2015, causing the average monthly bill to remain constant. This analysis examines the buyout project as a 5-year purchasing period from 2010-2014.

Residential Projected Gallons Sold from 2010 to 2015:

594 customers*3342 gallons per month* 12 months* 6 years= 142,944,000 gallons

Gallons Loss from Buyout Impact:

5 customers * 3342 gallons per month* 12 months* 5 years = 1,002,600 gallons (2010)

17 customers * 3342 gallons per month* 12 months* 4 years = 2,727,072 gallons (2011)

13 customers * 3342 gallons per month* 12 months* 3 years = 1,564,056 gallons (2012)

38 customers * 3342 gallons per month* 12 months* 2 years = 3,047,904 gallons (2013)

18 customers * 3342 gallons per month* 12 months* 1 years = 721,872 gallons (2014)

Total Buyout Impact: (9,003,840) gallon loss 5.0%

Residential Projected Revenue from 2010 to 2015:

594 customers * \$25.78 monthly bill * 12 months * 6 years= \$1,102,599.04

Revenue Loss from Buyout Impact:

5 customers * \$25.78 monthly bill * 12 months * 5 years= \$7,734.00

17 customers * \$25.78 monthly bill * 12 months * 4 years= \$21,036.48

13 customers * \$25.78 monthly bill * 12 months * 3 years= \$12,065.04

38 customers * \$25.78 monthly bill * 12 months * 2 years= \$23,511.36

18 customers * \$25.78 monthly bill * 12 months * 1 years= \$5,568.48

Total Buyout Impact: (\$69,915.36 \$USD2010) revenue loss 6.0%

Increase in sewage rate needed to cover buyout loss:

\$69,915.36/6years/12months/503remaining customers=\$1.93 increase in bill for 6 years

However only 469 customers remain in 2015:

\$69,915.36/6years/12months/469remaining customers=**\$2.07 increase in monthly bill for 6 years**



Dunloup Creek Project

Historical Sewage Rates

INEFFECT FROM JULY 1, 1992 AND EXPIRE JUNE 30, 2005

First 2,000 gallons used per month	\$ 6.00 per thousand gallons
Next 8,000 gallons used per month	\$ 5.44 per thousand gallons
All over 10,000 gallons used per month	\$ 4.71 per thousand gallons

Minimum monthly charge is \$12.00 per month.

INEFFECT FROM JULY 1, 2006 AND EXPIRE JUNE 30, 2007

First 2,000 gallons used per month	\$ 7.00 per thousand gallons
Next 8,000 gallons used per month	\$ 6.26 per thousand gallons
All over 10,000 gallons used per month	\$ 5.00 per thousand gallons

Minimum monthly charge is \$14.00 per month.

INEFFECT FROM JULY 1, 2007 AND EXPIRE JUNE 30, 2011

First 2,000 gallons used per month	\$ 8.01 per thousand gallons
Next 8,000 gallons used per month	\$ 7.27 per thousand gallons
All over 10,000 gallons used per month	\$ 6.01 per thousand gallons

Minimum monthly charge is \$16.02 per month.

**Rates adjusted multiple times within 2007. This analysis focuses on the end of year rate for 2007.*

INEFFECT FROM JULY 1, 2011 AND EXPIRE JUNE 30, 2013

First 2,000 gallons used per month	\$ 8.89 per thousand gallons
Next 8,000 gallons used per month	\$ 8.07 per thousand gallons
All over 10,000 gallons used per month	\$ 6.67 per thousand gallons

Minimum monthly charge is \$17.78 per month.

INEFFECT FROM JULY 1, 2013 AND EXPIRE JUNE 30, 2014

First 2,000 gallons used per month	\$ 11.56 per thousand gallons
Next 8,000 gallons used per month	\$ 10.49 per thousand gallons
All over 10,000 gallons used per month	\$ 8.67 per thousand gallons

Minimum monthly charge is \$23.12 per month.

INEFFECT FROM JULY 1, 2014 AND EXPIRE JUNE 30, 2015

First 2,000 gallons used per month	\$ 15.29 per thousand gallons
Next 8,000 gallons used per month	\$ 14.16 per thousand gallons
All over 10,000 gallons used per month	\$ 11.70 per thousand gallons

Minimum monthly charge is \$31.22 per month.

**Leak charge added and municipal excise tax surcharge.*

INEFFECT FROM JULY 1, 2015 AND EXPIRE JUNE 30, 2016

First 2,000 gallons used per month	\$ 16.85 per thousand gallons
Next 8,000 gallons used per month	\$ 15.29 per thousand gallons
All over 10,000 gallons used per month	\$ 12.64 per thousand gallons

Minimum monthly charge is \$33.70 per month.

**Leak charge added and municipal excise tax surcharge.*

INEFFECT ON AND AFTER JULY 1, 2016

First 2,000 gallons used per month	\$ 17.52 per thousand gallons
Next 8,000 gallons used per month	\$ 15.90 per thousand gallons
All over 10,000 gallons used per month	\$ 13.15 per thousand gallons

Minimum monthly charge is \$35.04 per month.

**Leak charge added and municipal excise tax surcharge.*



Dunloup Creek Project

Sewage System Reference Tables

Mt. Hope, WV Total Customer Sewage System Information					
Year	Total Customers	Annual Change	Total Gallons Sold Annually	Average Monthly Consumption (Per Customer)	Average Monthly Sewage Bill (Per Customer)
2000	530		62776000	9870	54.82
2001	523	-7	64620000*	10296	58.53
2002	526	3	66464000	10530	60.90
2003	523	-3	62151000	9903	54.99
2004	516	-7	64741000	10456	60.14
2005	521	5	61968000	9912	55.04
2006	517	-4	53595000	8639	55.56
2007	518	1	56673000	9117	67.76
2008	520	2	59419000	9522	70.71
2009	592	72	53036000	7466	55.76
2010	651	59	49311000	6312	47.37
2011	637	-14	37708000	4933	41.45
2012	617	-20	33870000	4575	38.56
2013	607	-10	35482000	4871	53.24
2014	565	-42	31674000	4672	69.05
2015	528	-37	27910000	4405	70.47

*Note: Volume information unavailable due to flood of July 2001 during which records at City Hall were destroyed. Average value of 2000 and 2002 was estimated for 2001 missing value.

Mt. Hope, WV Residential Customer Sewage System Information					
Year	Total Customers	Annual Change	Total Gallons Sold Annually	Average Monthly Consumption (Per Customer)	Average Monthly Sewage Bill (Per Customer)
2000	502		23571000	3913	22.41
2001	489	-13	21210500*	3615	20.78
2002	494	5	18850000	3180	18.42
2003	490	-4	16344000	2780	16.24
2004	490	0	19132000	3254	18.82
2005	478	-12	20315000	3542	20.39
2006	470	-8	19511000	3459	23.14
2007	471	1	18796000	3326	25.66
2008	471	0	18844000	3334	25.72
2009	538	67	21967000	3403	26.22
2010	594	56	23824000	3342	25.78
2011	581	-13	23078000	3310	28.35
2012	561	-20	21740000	3229	27.70
2013	549	-12	20332000	3086	34.51
2014	509	-40	19327000	3164	47.71
2015	469	-40	16986000	3018	49.27

*Note: Volume information unavailable due to flood of July 2001 during which records at City Hall were destroyed. Average value of 2000 and 2002 was estimated for 2001 missing value.



Dunloup Creek Project

WV Public Service Commission Sewage System 2015 Annual Report

Annual Report Section
Received By E-Filing on: 11/19/2015
AR Utility ID: 259
Class: B

WASTEWATER UTILITIES

(Class A & B)

ANNUAL REPORT For Year Ended 2015 For

NAME OF UTILITY: CITY OF MOUNT HOPE SEWER FUND

PHYSICAL ADDRESS: 609 MAIN STREET - MOUNT HOPE, WV 25880

MAILING ADDRESS: P.O. BOX 151 - MOUNT HOPE, WV 25880

NAME OF MAYOR/ CHAIRPERSON/ PRESIDENT: MAYOR MICHAEL KESSINGER

PHYSICAL ADDRESS: 609 MAIN STREET - MOUNT HOPE, WV 25880

UTILITY CONTACT PERSON: CINDY WINGROVE - CITY TREASURER

TELEPHONE NO: 304-877-2211

E-MAIL ADDRESS: cwingrove@suddenlinkmail.com

ACCOUNTING CONTACT PERSON: LAWRENCE MISITI - CITY AUDITOR

ACCOUNTANT'S MAILING ADDRESS: 211 PERDUE STREET - BECKLEY, WV 25801

TELEPHONE NO: 304 - 253 - 2401

E-MAIL ADDRESS: lmreico@hotmail.com

TO THE PUBLIC SERVICE COMMISSION OF WEST VIRGINIA

FOR THE YEAR ENDED: 06/30/2015

Utility Class: B

Revision Date:

Audit Report Filed Date:



Dunloup Creek Project

CITY OF MOUNT HOPE SEWER FUND							
01/00/1900							
06/30/2015							
OPERATING REVENUES (Account 400)							
1. Report below the amount of operating revenue for the year for each prescribed account and the amount from the preceding year. 2. List the gallons sold for the current year and preceding year. 3. Number of customers should be reported on the basis of number of meters, plus number of flat rate accounts, except that where separate meter readings are added for billing purposes, one customer shall be counted for each group of meters so added. The average number of customers means the average of the figures at the close of each month or each billing period. 4. Where charges are not dependent on metered water consumption, flat rate revenue accounts apply.							
Line No.	Amount (a)	Operating Revenues		Gallons (000 omitted)		Average Number of Customers	
		Amount for Year (b)	Amount from Last Year (c)	Of Water on which Billings Are Based for this Year (d)	Of Water on which Billing Are Based for Previous Year (e)	Number for Year (f)	Number from Last Year (g)
1	SALES OF WASTEWATER						
2	521. Flat Rate Revenues						
3	521.1 Residential Revenues						
4	521.2 Commercial Revenues						
5	521.3 Industrial Revenues						
6	521.4 Revenues From Public Authorities						
7	521.5 Multiple Family Dwellings						
8	521.6 Other Revenues						
9	Total Flat Rate Revenues	-	-	-	-	-	-
10	522. Measured Revenues						
11	522.1 Residential Revenue	283,451	227,335	16,986	19,327	469	509
12	522.2 Commercial Revenues	37,795	22,631	2,220	1,654	45	43
13	522.3 Industrial Revenues	13,396	12,944	1,080	1,417	3	3
14	522.4 Revenues From Public Authorities	92,213	78,052	7,624	9,276	11	10
15	522.5 Multiple Family Dwelling Revenues						
16	Total Measured Revenues	426,855	340,962	27,910	31,674	528	565
17	523. Revenues From Public Authorities						
18	524. Revenues From Other Systems	-	-	-	-		
19	525. Interdepartmental Revenues	-	-				
20	Total Sales of Wastewater	426,855	340,962	27,910	31,674	528	565
21	OTHER OPERATING REVENUES						
22	530. Guaranteed Revenues	-	-				
23	531. Sale of Sludge	-	-				
24	532. Forfeited Discounts	11,062	8,588				
25	534. Rents From Wastewater Property	-	-				
26	535. Interdepartmental Rents	-	-				
27	536. Other Wastewater Revenues	12,009	1,803				
28	Total Other Operating Revenues	23,071	10,391				
29	Total Wastewater Operating Revenues	449,926	351,353				

600



Dunloup Creek Project

CITY OF MOUNT HOPE SEWER FUND				
01/00/1900				
08/30/2016				
WASTEWATER OPERATION AND MAINTENANCE EXPENSES (Continued)				
Line No.	Account (a)	Schedule Page No. (b)	Amount for the Year (c)	Amount from Preceding Year (d)
1	TREATMENT AND DISPOSAL EXPENSES			
2	Operation			
3	701.5 Salaries and Wages - Employees	605A	58,353	56,064
4	703.5 Salaries and Wages - Officers, Directors and Majority Stockholders	605C	-	-
5	704.5 Employee Pensions and Benefits	607	650	650
6	710.5 Purchased Wastewater Treatment	604	-	-
7	711.5 Sludge Removal Expense	607B	-	-
8	715.5 Purchased Power	607B	9,957	11,127
9	716.5 Fuel for Power Production	607B	-	-
10	718.5 Chemicals	607B	2,821	1,170
11	720.5 Materials and Supplies	607B	3,859	8,650
12	731.5-736.5 Contractual Services	608 - 608E	3,493	3,387
13	741.5 Rental of Building/Real Property	607	-	-
14	742.5 Rental of Equipment	607	-	-
15	750.5 Transportation Expenses	607	-	-
16	756.5-759.5 Insurance	607A	24,458	20,389
17	767.5 Regulatory Commission Expense - Other	605	-	-
18	775.5 Miscellaneous Expenses	605	6,078	9,914
19	Total Operation		109,888	111,361
20	Maintenance			
21	701.6 Salaries and Wages - Employees	605A	-	-
22	703.6 Salaries and Wages - Officers, Directors and Majority Stockholders	605C	-	-
23	704.6 Employee Pensions and Benefits	607	-	-
24	711.6 Sludge Removal Expense	607B	-	-
25	718.6 Chemicals	607B	-	-
26	720.6 Materials and Supplies	607B	-	-
27	731.6-736.6 Contractual Services	608 - 608E	-	-
28	741.6 Rental of Building/Real Property	607	-	-
29	742.6 Rental of Equipment	607	-	-
30	750.6 Transportation Expenses	607	-	-
31	756.6-759.6 Insurance	607A	-	-
32	767.6 Regulatory Commission Expense - Other	605	-	-
33	775.6 Miscellaneous Expenses	605	3,532	2,651
34	Total Maintenance		3,532	2,651
35	Total Treatment and Disposal Expenses		113,200	114,002
36	CUSTOMER ACCOUNTS EXPENSES			
37	701.7 Salaries and Wages - Employees	605A	15,681	15,367
38	703.7 Salaries and Wages - Officers, Directors and Majority Stockholders	605C	-	-
39	704.7 Employee Pensions and Benefits	607	417	405
40	715.7 Purchased Power	607B	-	-
41	716.7 Fuel for Power Production	607B	-	-
42	720.7 Materials and Supplies	607B	1,449	1,241
43	731.7-736.7 Contractual Services	608 - 608E	-	-
44	741.7 Rental of Building/Real Property	607	-	-
45	742.7 Rental of Equipment	607	-	-
46	750.7 Transportation Expenses	607	-	-
47	756.7-759.7 Insurance	607A	71	1,348
48	767.7 Regulatory Commission Expense - Other	605	-	-
49	770.7 Bad Debt Expense	607	9,346	5,106
50	775.7 Miscellaneous Expense	605	-	-
51	Total Customer Accounts Expenses		26,984	23,487
52	ADMINISTRATIVE AND GENERAL EXPENSES			
53	701.8 Salaries and Wages - Employees	605A	10,775	11,927
54	703.8 Salaries and Wages - Officers, Directors and Majority Stockholders	605C	-	-
55	704.8 Employee Pensions and Benefits	607	-	-
56	715.8 Purchased Power	607B	-	-
57	716.8 Fuel for Power Production	607B	-	-
58	720.8 Materials and Supplies	607B	1,645	2,648
59	731.8-736.8 Contractual Services	608 - 608E	-	-
60	741.8 Rental of Building/Real Property	607	4,847	4,846
61	742.8 Rental of Equipment	607	321	321
62	750.8 Transportation Expenses	607	-	-
63	756.8-759.8 Insurance	607A	19,353	23,053
64	760.8 Advertising Expense	607	-	-
65	766.8 Regulatory Commission Expenses - Amortization of Rate Case Expense	605	-	-
66	767.8 Regulatory Commission Expenses - Other	605	-	-
67	775.8 Miscellaneous Expenses	605	5,133	4,358
68	Total Administrative and General Expenses		42,084	47,163
69	TOTAL OPERATING EXPENSES	603E	268,907	273,871

The 2010 PSC report acknowledges the economic loss of these events in their Financial Statement:

- (1) LOSS OF MAJOR CUSTOMER – GEORGIA PACIFIC PLANT CLOSURE
- (2) CLOSURE OF MOUNT HOPE HIGH SCHOOL – COUNTY CONSOLIDATION
- (3) PROPOSED 60% RATE INCREASE



Dunloup Creek Project

WV Public Service Commission Sewerage System Rates, Rules, and Regulations for Furnishing

P.S.C. W. Va. No. 10
Canceling P.S.C. W. Va. No. 9

CITY OF MOUNT HOPE, a municipal corporation
OF
MOUNT HOPE, WEST VIRGINIA
RATES, RULES AND REGULATIONS FOR FURNISHING
SEWERAGE AND SEWAGE DISPOSAL SERVICE
at Mount Hope, Fayette County, West Virginia
Filed with THE PUBLIC SERVICE COMMISSION
of
WEST VIRGINIA

Issued June 3, 2014

Effective for service rendered on or after June 1, 2014
or as otherwise provided herein

Adopted by City Council on March 11,
2014 and issued by authority of an
order of The Public Service Commission
of West Virginia in Case No. 14-0562-S-MA
final May 29, 2014.

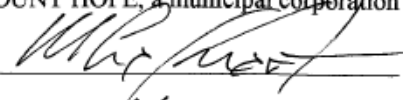
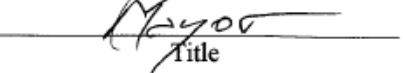
RECEIVED

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W VA PUBLIC SERVICE
COMMISSION
SECRETARY'S OFFICE

Issued by CITY OF MOUNT HOPE, a municipal corporation

By



Title

T:\TARIPFS\SEWER\MT HOPE #10S (PENDING).DOC

CITY OF MOUNT HOPE (Sewer)

P.S.C. W. Va. No. 10
Original Sheet No. 2

(N) APPLICABILITY

Applicable within the entire territory served.

(C) AVAILABILITY OF SERVICE

Available for general domestic, commercial and industrial sewer service

(N) **IN EFFECT FROM JUNE 1, 2014 AND EXPIRE JUNE 30, 2015**

(I,C) RATES

First	2,000 gallons of water used	\$ 15.61 per 1,000 gallons
Next	8,000 gallons of water used	\$ 14.16 per 1,000 gallons
All Over	10,000 gallons of water used	\$ 11.70 per 1,000 gallons

(C,I) MINIMUM CHARGE

No bill will be rendered for less than \$31.22 per month, which is the equivalent of 2,000 gallons of usage with a 5/8" meter.

(N) **IN EFFECT FROM JULY 1, 2015 AND EXPIRE JUNE 30, 2016**

(I,C) RATES

First	2,000 gallons of water used	\$ 16.85 per 1,000 gallons
Next	8,000 gallons of water used	\$ 15.29 per 1,000 gallons
All Over	10,000 gallons of water used	\$ 12.64 per 1,000 gallons

(C,I) MINIMUM CHARGE

No bill will be rendered for less than \$33.70 per month, which is the equivalent of 2,000 gallons of usage with a 5/8" meter.

(N) **IN EFFECT ON AND AFTER JULY 1, 2016**

(I,C) RATES

First	2,000 gallons of water used	\$ 17.52 per 1,000 gallons
Next	8,000 gallons of water used	\$ 15.90 per 1,000 gallons
All Over	10,000 gallons of water used	\$ 13.15 per 1,000 gallons

(C,I) MINIMUM CHARGE

No bill will be rendered for less than \$35.04 per month, which is the equivalent of 2,000 gallons of usage with a 5/8" meter.

(N) Indicates new

(C) Indicates change in text

(I) Indicates increase